

IN THE CLAIMS:

Please amend the claims as follows:

1. (Currently amended) A module component comprising:

a substrate made of resin having a plurality of penetration holes, said plurality of penetration holes disposed in said substrate so as to form a matrix of ~~one of~~ N aligned rows and M aligned columns of penetration holes; each of said penetration holes being aligned in both a row and a column of said matrix, and each row and each column of said matrix comprising at least two penetration holes;

a circuit wiring disposed on both sides of said substrate; and

a chip component ~~components~~ having a height almost the same as a depth of each of said penetration holes, ~~one of~~ said chip component ~~components~~ disposed in one of said penetration holes for electrically coupling said circuit wiring disposed on both sides of said substrate,

wherein N is equal to or greater than 3, and M is equal to or greater than 3.

2. (Cancelled)

3. (Cancelled)

4. (Previously presented) A module component according to claim 1, further comprising a fixing member for filling up a gap between said chip component and said one of said penetration holes.

5. (Previously presented) A module component according to claim 1, wherein at least one of the penetration holes is tapered.

6. (Previously presented) A module component according to claim 1, wherein support means is formed at said one of said penetration holes for supporting said chip component.

7. (Previously presented) A module component according to claim 1, further comprising an auxiliary substrate disposed over at least one side of the substrate.

8. (Previously presented) A module component comprising:
a substrate made of resin having a penetration hole;
circuit wiring disposed on both sides of said substrate; and
first and second auxiliary substrates disposed such that said substrate is disposed between said first and second auxiliary substrates, and
a chip component disposed in the penetration hole, said chip component having a specified height being greater than the depth of the penetration hole and not projecting from said first and second auxiliary substrates, said chip component electrically coupling said circuit wiring disposed on both sides of said substrate,
wherein the penetration hole is formed at a position according to a matrix.

9. (Original) A module component according to claim 1, wherein an end of said chip component and a surface of said substrate are formed in different colors.

10. (Previously presented) A module component comprising:
a substrate made of resin having a penetration hole;
circuit wiring disposed on both sides of said substrate;
a chip component having a height almost same as a depth of said penetration hole and put in the penetration hole for electrically coupling said circuit wiring disposed on both sides of said substrate;
an auxiliary substrate disposed over said substrate;
an IC chip mounted on said auxiliary substrate; and

a capacitor put in said penetration hole immediately beneath said IC chip to be coupled directly with said IC chip,

wherein the penetration hole is formed at a position according to a matrix.

11. (Previously presented) A module component according to claim 1, further comprising a ground layer disposed beneath said substrate, said ground layer being coupled with said circuit wiring disposed on a lower side of said substrate.

12. (Previously presented) A module component comprising:

a substrate made of resin having a penetration hole;

circuit wiring disposed on both sides of said substrate; and

a chip component having a height almost the same as a depth of said penetration hole and put in the penetration hole for electrically coupling said circuit wiring disposed on both sides of said substrate;

an auxiliary substrate disposed over said substrate;

an IC chip mounted on said auxiliary substrate; and

a ground layer disposed beneath said substrate,

wherein the penetration hole is formed at a position according to a matrix;

wherein a chip component having a specific value is accommodated to compose a desired circuit; and

wherein said IC chip is coupled directly with said ground layer.

13. (Withdrawn) A manufacturing method according to a module component comprising the steps of:

forming a penetration hole on a substrate made of resin;

inserting a chip component into the penetration hole, the chip component having an almost same height as a depth of the penetration hole;

forming a circuit wiring for coupling the chip component on said substrate; and

heating, compressing, and adhering an auxiliary substrate on at least one of both sides of the substrate,

wherein the penetration hole is formed according to a specified rule, and a chip component of a specific value is accommodated to compose a desired circuit.

14. (Withdrawn) A manufacturing method according to claim 13, wherein said step of forming the penetration hole comprises forming the penetration hole at a specified position according to a matrix, and a chip component of a specific value is put in the penetration hole to compose a desired circuit.

15. (Withdrawn) A manufacturing method according to claim 13, wherein said step of forming the penetration hole comprises the step of forming the penetration holes according to a matrix, and wherein said step of inserting the chip component comprises the step of inserting the chip component of a specific value in a specified penetration hole to compose a desired circuit.

16. (Withdrawn) A module component comprising:

a molded element with a chip component molded said resin with resin, an end electrode of said chip component being exposed; and

a circuit wiring on at least one side of said molded elements,

wherein said chip component is disposed according to a specified rule, and said chip component is molded with said resin to compose a desired circuit.

17. (Withdrawn) A module component according to claim 16, wherein said chip component is disposed at a specified position according to a matrix, and said chip component is molded with said resin to compose a desired circuit.

18. (Withdrawn) A module component according to claim 17 further comprising a dummy component having a same size as said chip component disposed at a position not filled with said chip component according to the matrix.

19. (Withdrawn) A module component according to claim 16, wherein said molded element is molded with one of epoxy resin and phenol resin.

20. (Withdrawn) A module component according to claim 16, wherein said resin contains a filler having at least one of a high heat conductivity and heat resistance.

21. (Withdrawn) A module component according to claim 16, wherein said resin contains at least one of Al_2O_3 , SiC , Al_3N_4 , and Si_3N_4 as a filler.

22. (Withdrawn) A module component according to claim 16, wherein said resin contains at least one of ceramic powder and SiO_2 as a filler.

23. (Withdrawn) A module component according to claim 16, wherein said resin contains a magnetic material.

24. (Withdrawn) A module component according to claim 16, wherein said end electrode of said chip component and a surface of said molded element are formed in different colors.

25. (Withdrawn) A module component according to claim 16, wherein said molded element comprises a ground layer over a bottom of said molded element, and wherein said ground layer is directly coupled with said end electrode.

26. (Withdrawn) A module component comprising:

a chip component disposed according to a specified rule;
an IC chip mounted to one side of a molded element formed by resin;
a circuit wiring on a substrate for directly coupling an electrode terminal of said IC chip
with said wiring patterns on said substrate through said chip component.

27. (Withdrawn) A manufacturing method of a module component comprising:
an inserting step of inserting a chip component in a molding die;
a primary molding step of filling the molding die with resin with an end electrode of the
chip component exposed;
a peeling step of peeling the molding die at a side of inserting the chip component;
a secondary molding step of filling the molding die with resin with an end electrode of
the chip component; and
a forming step of forming a circuit wiring on one side or both sides of a molded element
molded with resin,
wherein the chip component is disposed according to a specified rule, and the chip
component are molded with the resin to compose a desired circuit.

28. (Withdrawn) A manufacturing method according to claim 27, wherein the chip
component is disposed in a specified position according to a matrix, and the chip component of a
specific value is molded with the resin to compose a desired circuit.

29. (Withdrawn) A manufacturing method according to claim 28, wherein a dummy
component having a same size as the chip component is inserted at a position where the chip
component is not inserted according to the matrix.

30. (Withdrawn) A manufacturing method of a module component comprising:

an inserting step of inserting a chip component in a molding die, the chip component being disposed according to a specified rule;

a primary molding step of filling with resin with an end electrode of the chip component exposed;

a peeling step of peeling the molding die at a side of inserting the chip component;

a secondary molding step of filling with resin with an end electrode of the chip component exposed; and

a step of mounting an IC chip on one side of a molded element molded with resin and coupling an other side to a substrate,

wherein a electrode terminal of the IC chip is directly coupled with a circuit wiring on the substrate through the chip component.

31. (Previously presented) A module component comprising:

a substrate made of resin having a penetration hole;

circuit wiring disposed on both sides of said substrate;

a chip component having a height almost same as a depth of said penetration hole and put in the penetration hole for electrically coupling said circuit wiring disposed on both sides of said substrate; and

wherein the penetration hole is formed at a position according to a matrix,

wherein a chip component having a specific value is accommodated to compose a desired circuit, and

wherein the penetration hole is tapered.

32. (Previously presented) A module component comprising:

a substrate made of resin having a penetration hole;

circuit wiring disposed on both sides of said substrate;

a chip component having a height almost same as a depth of said penetration hole and put in the penetration hole for electrically coupling said circuit wiring disposed on both sides of said substrate; and

a ground layer disposed beneath said substrate, said ground layer being coupled with said circuit wiring disposed on a lower side of said substrate,

wherein the penetration hole is formed at a position according to a matrix, and

wherein a chip component having a specific value is accommodated to compose a desired circuit.

33. (Previously presented) A module component comprising:

a substrate made of resin having a penetration hole;

circuit wiring disposed on both sides of said substrate;

a chip component having a height almost same as a depth of said penetration hole and put in the penetration hole for electrically coupling said circuit wiring disposed on both sides of said substrate;

an auxiliary substrate disposed over said substrate; and

a ground layer disposed beneath said auxiliary substrate, said ground layer being coupled with said circuit wiring disposed on a lower side of said substrate.

34. (Previously presented) A module component comprising:

a substrate made of resin having a penetration hole;

circuit wiring disposed on both sides of said substrate;

a chip component having a height almost same as a depth of said penetration hole and put in the penetration hole for electrically coupling said circuit wiring disposed on both sides of said substrate;

an auxiliary substrate disposed over said substrate;

an IC chip mounted on said auxiliary substrate; and

a ground layer disposed beneath said auxiliary substrate,

wherein the penetration hole is formed at a position according to a matrix, and

wherein said IC chip is coupled directly with said ground layer.

35. (Previously presented) A module component according to claim 1, further comprising a dummy component disposed in another penetration hole of said penetration holes, said dummy component having a size almost the same as said chip components and functioning as an insulator.